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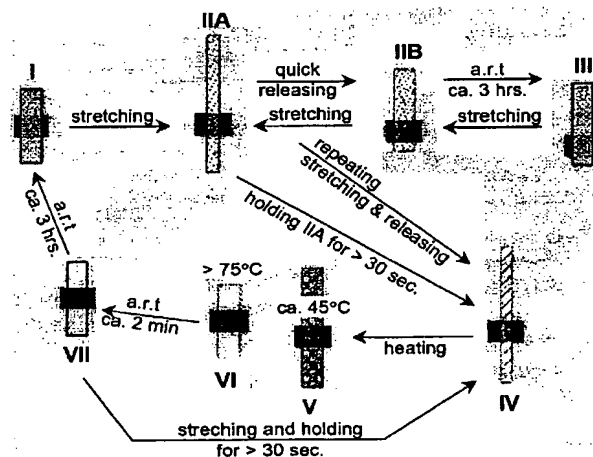
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[Continued on next page]

(54) Title: POLY(3-HYDROXYALKANOATE) BLOCK COPOLYMER HAVING SHAPE MEMORY EFFECT



(57) Abstract: Provided is a PHB block copolymer having orientation-induced rubber- elasticity and temperature-sensitive shape memory effects, comprising a plurality of 3- hydroxybutyrate (3HB) blocks as a repeating unit and a plurality of 3-hydroxyvalerate (3HV) blocks as a repeating unit, and optionally a hydroxy acid repeating group containing 6 or more carbon atoms. The PHA block copolymer exhibits orientation-induced rubber-elasticity and shape memory effects with a fast shape-recovery rate, and therefore such characteristics in conjunction with physical properties such as biodegradability and biocompatibility unique to PHA enable application thereof to a variety of uses.

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